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## ABSTRACT

The practice of, and research on interprofessional working in healthcare, commonly referred to as teamwork, has been growing rapidly. This has attracted international policy support flowing from the growing belief that patient safety and quality of care can only be achieved through the collective effort of the multiple professionals caring for a given patient. Despite the increasing policy support, the evidence for effectiveness lags behind: While there are analytic epidemiological studies to support the belief in effectiveness, few reliable intervention studies have been published and so we have yet to confirm a causal link. We argue that this lag in evidence development may be because the understanding of teamwork remains conceptually unclear, with no common terminology or definitions, making it difficult to distinguish interventions from each other. Here, we examine published studies from the last decade in order to elicit current usage of terms related to interprofessional working; and, in so doing, initiate the empirical validation of our existing conceptual framework by mapping its categories against the descriptions of interprofessional interventions in the included studies. We searched Medline and Embase for papers describing interprofessional interventions using a standard approach. We independently screened papers and classified these under set categories following a thematic approach. Disagreements were resolved through consensus. Twenty papers met our inclusion criteria. Identified interprofessional work interventions fall into a range, from looser to tighter links between team members. Definitions are inconsistently and inadequately applied. We found the framework to be a helpful and practical tool for classifying such interventions more consistently. Our analysis enabled us to scrutinise the original dimensions of the framework, confirm their usefulness and consistency, and reveal new sub-categories. We propose a slightly revised typology and a classification tool (InterPACT) for future validation, with four mutually exclusive categories: teamwork, collaboration, coordination, and networking. Consistent use, further examination and refinement of the proposed typology and tool should lead to greater clarity in definition and design of interventions. This should support the development of a reliable and coherent evidence base on interventions to promote interprofessional working in health and social care.

## Introduction

Poor cooperation between different professionals, commonly referred to as lack of teamwork, has long been implicated in negative patient outcomes and an increase in clinical errors (e.g. Joint Commission, 2008; Khon, Corrigan, & Donaldson, 2001; Page, 2004). In the context of international scarcity and maldistribution of healthcare resources, successful interprofessional work activity has been championed as a means of reducing waste and avoiding duplication of effort; and in this way injecting efficiency in health systems (Carter, 2016). However, interprofessional working in health and social care has been uncritically adopted as the solution to a wide range of problems, with little attention given to developing conceptual clarity over what exactly this way of working might represent (Xyrichis & Ream, 2008). As Barr (2010) warned, interprofessional working “is in danger of being reified as a self-evident virtue in need of neither justification nor critical review” (Barr, 2010:11). Indeed, even its definition remains unclear. In this paper we undertake a critical review (Jesson & Bissell, 2006; Jesson & Lacey, 2006) to examine published studies from the last decade in order to elicit current usage of terms related to interprofessional working; and, in so doing, undertake an initial step in empirically validating a previously developed conceptual framework (Reeves, Lewin, Espin, & Zwarenstein, 2010) by examining its categories alongside the descriptions of interprofessional interventions in the included studies.

## Background

Commentators agree that interprofessional working is a heterogeneous construct and as such it can be conceptualised in different ways (e.g. Dow et al., 2017; Manser, 2009; Salas, Cooke, & Rosen, 2008). The setting in which this work is carried out, the number and types of professionals involved and the kind of

healthcare problems it aims to address can all influence the way in which it is perceived and defined. In the early 1990s Leathard (1994) examined the wide range of terms employed in the literature and found a 'terminological quagmire' - a situation that had not changed nearly a decade later when she subsequently published on this issue (Leathard, 2003). Other more recent reviews agree (Dietz et al., 2014; Paradis et al., 2014; Reeves et al., 2011). Dietz et al.(2014) specifically pointed out that conceptual and definitional clarity are needed to underpin empirical evaluation of interventions and synthesis of results across research studies.

There are very few high-quality intervention studies demonstrating that interprofessional work activities can have a meaningful impact on health or healthcare outcomes (Reeves, Pelone, Harrison, Goldman, & Zwarenstein, 2017); and the wide attention drawn to these few studies has contributed to the terminological confusion. A popular intervention in North America, TeamSteps®, has been endorsed by the Agency for Healthcare Research and Quality (AHRQ) and widely regarded as an evidence-based intervention aimed at improving 'teamwork' skills among healthcare professionals, using a combination of training materials<sup>i</sup>. Similarly, in the UK, MDT-FIT (Multidisciplinary Team Feedback for Improving Teamworking) had been endorsed by NHS Improving Quality (NHSIQ) as an evidence-based tool specific to cancer multidisciplinary teams to self-assess and receive feedback on how their team performs<sup>ii</sup>. While these tools have shown promise, neither has been tested in high-quality intervention studies, and nor do they specify the kind of interprofessional work they are designed to address. Instead, these follow the literature in conflating all kinds of interprofessional work activities into 'teamwork'.

Unless there is greater clarity in the field about the different kinds of interprofessional work, progress in identifying which works better and under which circumstances will continue to be slow and unreliable. In this paper we respond to this problem with a critical review of recently published studies, examining the empirical validity and currency of our existing theoretical

framework (Reeves et al., 2010); and propose a modification and tool, the InterProfessional Activity Classification Tool (InterPACT), to help inform and strengthen the design of future research as well the dissemination and translation of such work.

## Conceptual framework

In an attempt to offer a framework that could provide conceptual clarity in this field we previously undertook a wide, comprehensive and critical assessment of the literature on interprofessional working from a variety of clinical settings and in different national contexts (Reeves et al., 2010). In that work, interprofessional working was viewed as an activity which varies along six key dimensions of the relationships between those working together: clarity of 1) goals, 2) roles and responsibilities; and degree of 3) shared identity, 4) commitment, 5) interdependence and 6) integration between work practices. Drawing from our analysis a typology was proposed which introduced a 'contingency approach' to interprofessional work. We argued for qualitatively different forms of interprofessional work, and that particular patient needs and practice demands might be best matched to one of four kinds of activity: teamwork, collaboration, coordination and networking. These activities are described in Table 1.

INSERT TABLE 1 ABOUT HERE

These four types were also illustrated as nested circles, but not to imply Venn diagram-like overlap. Rather, we viewed the four types as increasingly 'tight' forms of collaboration, moving from outermost to innermost circles (Figure 1).

INSERT FIGURE 1 ABOUT HERE

While the merit of this classification is intuitive to many working in this field, it represents our view of the different strands of interprofessional work that the field should explore, not what it currently does. For example, the use of the terms 'team' and 'teamwork' are commonplace in the literature, but

these are often used to describe very different types of interprofessional work. Our 2010 typology was therefore tentative in nature and needs to go through a process of empirical validation before use in real life -this is what the current paper has begun to address.

## Method

We undertook a critical review (Jesson & Bissell, 2006; Jesson & Lacey, 2006) of recently published literature on interprofessional interventions. The objectives were to: explore consistency and convergence of interprofessional definitions used in the literature; undertake an initial step towards empirically validating our existing framework (Reeves et al., 2010); and modify our framework in response to the findings from the review in order to inform future work. The three authors held regular meetings throughout the process, with key decisions recorded on a decision audit trail.

### Data sources

Guided by our previous interprofessional working typology (teamwork, coordination, collaboration, networking), we undertook a set of searches for empirical work in the Medline and Embase databases in August 2015 using the terms shown in Table 2. In order to exclude non-empirical work, a methodological filter was applied drawing from existing guidance (SIGN, 2015). Limiting to 10 years ensured currency of retrieved papers.

TABLE 2 ABOUT HERE

### Inclusion criteria

To gain insight to the nature of current research in this field, the 50 most recent interprofessional intervention studies re-

trieved from the search for each category (teamwork, collaboration, coordination, networking) were read and assessed for eligibility by the first author. To be considered, papers had to be reporting: a) on an empirical study, b) of an interprofessional intervention/activity, which c) was explained in sufficient depth to enable an assessment of its content (kind and number of professionals involved, e.g. doctors, nurses, pharmacists, etc.) and form (purpose and ways of working, e.g. through regular or ad hoc meetings, face to face or remote working, etc.). Papers that provisionally met the inclusion criteria were presented for a team discussion.

## Analysis

The analysis was guided by our framework (Reeves et al., 2010) and its associated classifications. This process consisted of four main stages. First, we each independently read each paper, paying particular attention to the description of the interprofessional activity reported on. We also noted how the authors chose to describe their way of working and considered this alongside the categories of our previously developed framework. Then, each author attempted to classify each paper under one the four categories of interprofessional teamwork, collaboration, coordination and networking; noting papers for which a decision was difficult or that did not seem to fit the existing schema. Finally, we held regular meetings to review our separate analysis and classifications, examining areas of convergence and disagreement. Through a process of consensus, we agreed on our final classification and recorded our decisions in an audit trail.

## Results

### Overview of search results

The volume of literature identified through the search - even though this was designed with specificity rather than sensitivity in mind - demonstrates increasing research activity around

interprofessional working in healthcare. While this was not meant to be a bibliometric study, it is worth noting the disparity of results between the searches for the four kinds of interprofessional work activity. Specifically, the search for collaboration generated the most results (n=1639, 54%), followed by teamwork (n=929, 31%), coordination (n=286, 10%) and networking (n=157, 5%). These results suggest that the terms most widely associated with interprofessional work are collaboration and teamwork, which is not surprising given the policy attention and positive management rhetoric around these two ideas. Following screening of papers, application of the inclusion criteria noted above and discussion between the authors 20 papers met the inclusion criteria for in-depth analysis (Figure 2).

FIGURE 2 ABOUT HERE

### Summary of papers

The included papers (Table 4) reported studies undertaken over eight countries: the USA (n=6) (Auerbach et al., 2011; Bekelman et al., 2015; Gausvik, Lautar, Miller, Pallerla, & Schlaudecker, 2015; Gums et al., 2014; O'Leary et al., 2011; Saint et al., 2013), Canada (n=5) (Bissonnette, Woodend, Davies, Stacey, & Knoll, 2013; Dhalla et al., 2014; Markle-Reid et al., 2014; Moore et al., 2012; Rice et al., 2010), Sweden (n=2) (Berglund, Hasson, Kjellgren, & Wilhelmson, 2015; Muntlin Athlin, von Thiele Schwarz, & Farrohknia, 2013), Denmark (n=2) (Bunkenborg, Samuelson, Poulsen, Ladelund, & Akeson, 2014; Lisby et al., 2009), The Netherlands (n=2) (Munneke et al., 2010; Van Veen-Berkx, Bitter, Kazemier, Scheffer, & Gooszen, 2015), Australia (n=1) (Black et al., 2013), Belgium (n=1) (Deneckere et al., 2013) and Thailand (n=1) (Korbkitjaroen et al., 2011).

Most of the studies followed a quantitative design (n=18), either experimental, quasi-experimental or observational. Two studies utilised qualitative approaches (Moore et al., 2012; Rice et al., 2010). We were surprised by the limited number of qualitative studies that reported on the implementation or evaluation



of a clear interprofessional activity. This suggests more work needs to be done to encourage use, as well as better reporting, of qualitative studies in this line of work. Interprofessional working interventions were introduced in a range of healthcare settings, such as general inpatient wards, emergency departments, operating rooms, community and primary care settings; and with people suffering from both acute and chronic health issues such as Parkinson's disease.

## Overview of interventions

The 20 papers reported on interventions of different form and content, involving an array of health professionals. Notable examples include: Munneke et al. (2010) interprofessional network of over 2,700 physiotherapists, physicians and other health professionals in the Netherlands through which they worked to improve communication, information and knowledge exchange; Rice et al. (2010) collaborative intervention at a medical ward involving nurses, physicians, physiotherapists, dieticians, pharmacists and others through which they sought to improve the quality of interprofessional interactions, communication and patient care decision making; Berglund et al. (2015) nurse-led coordination of geriatric assessment, discharge, care planning and home visits alongside a social worker, physiotherapist and occupational therapist; and, Moore et al. (2012) family practice that involved a team of professionals jointly assessing, planning and evaluating team care plans for the practice patients through regular team meetings.

The level of detail provided in the different studies varied, as did the terminology used to describe their interventions. Some terms used were 'cross-functional teams' (Van Veen-Berkx et al., 2015), 'collaborative management' (Gums et al., 2014), 'team-based approach' (Black et al., 2013), 'hospitalist-based medicine team' (Saint et al., 2013), 'collaborative care approach' (Bissonnette et al., 2013) or 'collaborative care intervention' (Bekelman et al., 2015) among others. Many of the studies, while providing a description of the key components of

their intervention, did not consider a standardised terminology nor did they attempt to explicitly classify it as a particular kind of interprofessional work activity.

Using our framework we sought to standardise the descriptions of these interventions and classify them under the four categories of teamwork, collaboration, coordination and networking; remaining mindful of the distinguishing dimensions among these categories. For example, Deneckere et al. (2013) described the development of care pathways as an “interprofessional teamwork” intervention; but this lacked clear evidence of a shared team identity or responsibility (see Table 1). It was therefore reclassified as interprofessional collaboration. Similarly, Bunkenborg et al. (2014) referred to their intervention as “interprofessional collaboration” even though this lacked shared accountability between individuals and clear evidence of interdependence. Instead, it centred on a physician-led development of an assessment and treatment algorithm for nurses to use, report back and discuss in daily meetings. In this sense, the intervention was reclassified as interprofessional coordination.

As a result of this process, the included studies were classified as either: interprofessional teamwork (n=4); interprofessional collaboration (n=8); interprofessional coordination (n=7) or interprofessional networking (n=1). Table 3 below presents a summary of how the interventions were described in the papers and how these were classified after application of our framework (Reeves et al., 2010).

TABLE 3 ABOUT HERE

## Kinds of interprofessional work

To date, discussions around interprofessional ways of working have failed to adequately distinguish between the different kinds of such work. In this paper we sought to undertake an initial step towards the empirical validation of our previously developed framework (Reeves et al., 2010) by using it to reclassify interprofessional work interventions reported in recent

literature; and found this framework to be a helpful and practical tool to use for this purpose. Our original framework visualised the different kinds of interprofessional work within an interrelated and embedded schema (Figure 1). Based on the work undertaken for the current paper we propose that these can be seen as a continuum of looser to tighter team links. Interprofessional teamwork and network, as the two extreme ends of the continuum, are easy to discern; with interprofessional collaboration and coordination as intermediate categories, each of which contain sub-categories (Table 4).

Given our limited number of cases, we propose the below revisions to our previously developed framework as exploratory. It should also be noted that it is conceivable for the proposed categories and sub-categories to co-exist around a patient or professional simultaneously. This opens up the possibility of professionals being, for example, collaborative at one care juncture and coordinative at another.

#### *Interprofessional collaboration*

Upon closer inspection of the collaboration category, two studies initially classified under this seemed qualitatively different: Bekelman et al. (2015) and Gums et al.(2014). Firstly, while Bekelman et al. provided a description of their intervention (heart failure disease management) that seemed to naturally fall within the collaboration category, the outcome of their work relied on others (the primary physician) actually taking their recommendations on board. Consequently, if the physician chose to ignore the team's recommendations then the work of the team would have no tangible outcome and seem non-existent. In this sense, the work of the team was more consultative in nature. Therefore, while we classified this intervention within the collaboration category we also agreed this formed a sub-category in itself, which we term 'consultative collaboration'. Secondly, the intervention reported by Gums et al. on asthma management incorporated the features of the collaboration category but it essentially consisted of two professions - a pharmacist and a

physician. In many ways, portraying a dyad as an interprofessional team is conceptually complex and out of sync with normal use of the term. Therefore, we agreed this consisted another sub-category which we term as 'collaborative partnership'.

### *Interprofessional coordination*

Within the interprofessional coordination category there were three reports that were different enough to warrant further consideration: Muntlin Athlin et al. (2013), Saint et al.(2013) and Lisby et al.(2009). Firstly, while Muntlin Athlin et al. gave a fitting example of a coordinated working practice in an emergency department, the onus of the work rested on the lead physician who then delegated and oversaw the work of other clinicians. While this fits our understanding of coordinated work we concluded it consisted a distinct sub-category termed 'delegative coordination'. Secondly, the intervention described by Saint et al. seemed to fall into two tiers whereby the outcomes of what appeared to be a collaborative team were then implemented and followed through by a clinical care coordinator -whose work was predominantly that of coordination. As another distinct kind of practice, falling in between collaboration and coordination, we classify it as a sub-category which we term 'coordinated collaboration'. Thirdly, Lisby et al. in their study of pharmacist and pharmacologist coordination of physicians' prescriptions describe the provision of what appeared to be a consultation service. Therefore, as a different form of coordination, it was assigned to another sub-category termed 'consultative coordination'.

TABLE 4 ABOUT HERE

### *Dimensions of interprofessional work*

In addition to revisiting the different kinds of interprofessional work, our analysis also enabled us to scrutinise the

original definitions of our framework. Those definitions proposed a set of dimensions that distinguish between the different kinds of interprofessional working: 1) *shared commitment*; 2) *shared team identity*; 3) *clear goals*; 4) *clear team roles and responsibilities*; 5) *interdependence between team members*; and 6) *integration between work practices*. In our original framework the nature of the task was a further dimension of the type of interprofessional work, in terms of *predictability*, *urgency* and *complexity of the task*. Based on our current analysis we propose a series of updates, as outlined below.

We found all of these dimensions helpful in conceptualising interprofessional interventions, except those related to the task (predictability, urgency, and complexity). We propose that the character of the task should not itself lead to the classification of the type of interprofessional work, or the intervention to encourage it. And indeed, as we classified the interventions in these studies, we found that the nature of the tasks in different studies differed, but these task differences were not associated with specific types of interprofessional interventions. Different kinds of interprofessional work can thus address similar tasks, some of which might be more or less predictable, urgent or complex, and the same intervention can be used to encourage interprofessional work for tasks which vary in their predictability, urgency and complexity. For example, the study by O'Leary et al. (2010) reported on the introduction of interprofessional weekly rounds utilising a structured communication tool that enabled joint patient care discussion and planning. In this example, the acuity and complexity of the patient condition would dictate the nature of the team task, which could vary; if the patient was acutely unwell or in deterioration it could be highly urgent, complex and in many ways unpredictable. But across any type of patient and task, the intervention was constant. Therefore, we argue that as the nature of healthcare service delivery becomes increasingly complex, and as health and illness patterns continue to change in unpredictable ways, each kind of interprofessional activity will need to

accommodate different tasks with a range of predictability, complexity and urgency. The association between the combination of such task characteristics and kind of interprofessional activity can be the subject of further examination in future work.

Although we consider the other dimensions helpful to retain, we propose these are more clearly defined to introduce further conceptual clarity to the framework. To this end, we propose the following:

- By team commitment, we refer to the psychological attachment that healthcare professionals feel toward their team (based on Pearce et al. (Pearce & Herbig, 2004)).
- With team identity, we mean the collection of meanings attached to their team by healthcare professionals (based on Miscenko and Day (Miscenko & Day, 2016)).
- Team goals, refer to the explicit articulation of the purpose and ambition of the interprofessional team (based on Katzenbach and Smith (Katzenbach & Smith, 1993)).
- With team roles and responsibilities, we refer to the differentiation of healthcare professional jurisdiction among the interprofessional team members. Based on Abbott (Abbott, 1988), a jurisdiction refers to the link between a profession and its work; and signifies the extent to which a profession holds authority over a bundle of work tasks.
- Team interdependence, is the extent to which the outcome of an interprofessional interaction depends on the decisions and choices of all team members (based on Kelley and Thibaut (Kelley & Thibaut, 1978)).
- By integration of work practices, we refer to the alignment of professional practice towards a whole product to which healthcare professionals contribute. Here, product is used to refer to any intended output of an interprofessional healthcare team whether that be improved safety, quality, efficiency or care planning.

We propose the above definitions as descriptors to guide researchers and clinicians in distinguishing, classifying and

standardising the use and kinds of interprofessional work interventions/ activities; and, offer an InterProfessional Activity Classification Tool (InterPACT) to assist in this process, proposed usage of which is explained next.

## Classification tool

Based on the above analysis, we propose a tool (InterPACT, Table 5) to help with the empirical application of the framework; and assist in making decisions about classifying types of interprofessional work, and interventions to promote it. In this classification tool, each **kind** of interprofessional work is presented alongside the six **dimensions**, indicating the level (⊕⊕⊕⊕) of intensity expected.

TABLE 5 ABOUT HERE

We propose this tool not as a finished product, but as an initial conceptual basis from which research, practice and educational advancements in our field can be made. We offer InterPACT as a guide to help with the application of the framework in real life situations; and to invite more critical reflection on the work of existing and new interprofessional initiatives.

### *How to use InterPACT*

In the **first** instance, we invite colleagues to use our classification tool as a diagnostic, self-assessment exercise, introduced as part of a collegial discussion. We encourage colleagues to collectively reflect on each of the six **dimensions** (*shared commitment; shared team identity; clear goals; clear team roles and responsibilities; interdependence between team members; and integration between work practices*) and pragmatically note, in the context of their particular setting, the extent to which each dimension characterises their way of working.

Then, as a **second** step, colleagues should discuss the result of their self-assessment alongside the four main **kinds** of inter-professional activity (*teamwork, collaboration, coordination, and networking*) and reflect on which one currently represents their way of working; and which one they may want to develop towards. We believe that there are likely to be cost and organisational consequences arising from this choice, and we emphasise that no *kind* of interprofessional work activity in the classification tool is intrinsically superior to any other. Rather, the type of interprofessional work should be matched to patient needs and the organization of care delivery dynamically. We advise against aspiring towards a particular kind of inter-professional working arrangement on the basis of perceived hubris or dysfunction. Instead, we encourage colleagues employ the 'contingency approach' (Reeves et al., 2010) in order to consider the actual needs of their patients (where possible, including patients in this discussion) and the demands and constraints on their practice, in order to collectively decide which kind of interprofessional work pattern would be the best match.

Once the kind of interprofessional work that best characterises an activity is decided, a **third** step should involve colleagues considering the level of dosage/ intensity needed across the six dimensions and reflect on ways of injecting this, if needed, to their working practices. We suggest this diagnostic, self-assessment exercise is undertaken periodically to check progress and adjust prescription, in terms of dosage for each dimension, accordingly.

## Discussion

The notion of improving the delivery of healthcare services through interprofessional working has been around for many years, as have attempts to improve the quality of such ways of working (Khon et al., 2001). Having previously scoped the literature in the area (Reeves et al., 2010), we revisited the issue



in this paper. While research in this way of working has significantly increased, the interprofessional field remains poorly conceptualised in many empirical studies; with an on-going terminological confusion about different kinds of interprofessional work activity such as collaboration, teamwork and coordination. This appears to be the key reason hindering and delaying our progress in understanding which kind of activity works better in which settings. In the 20 studies we included in the current analysis we were able to: confirm the ongoing lack of conceptual clarity and inconsistent terminology used in the field; establish the existence of four kinds of interprofessional work we previously hypothesised; identify five additional sub-categories; and propose an InterProfessional Activity Classification Tool (InterPACT) for widespread use in the design and evaluation of future interprofessional research and practice.

We draw attention to InterPACT in particular (Table 5), which can be developed to act as a much-needed diagnostic, self-assessment instrument for use by both teams and evaluators. Even though there are existing self-assessment tools specifically for teamwork, these do not meet their potential because they fall short of differentiating between the different kinds of interprofessional work and instead conflate them all as teamwork. Interprofessional teams and evaluators can adopt, examine and if needed adapt InterPACT to help them reflect on the nature of their existing setup, consider which kinds of interprofessional work activity they want to pursue and develop interventions accordingly. In this way, research in this field can move from conceptual to empirical categorisation, using our classification as a tool, not to measure the quality, but the relative dose of the different dimensions of interprofessional work. In addition to its practical application, InterPACT also has implications for theory development. Despite past attempts at developing conceptual maps and theoretical models in this field, there remain few substantive theories to pave the way forward; owing to a lack of understanding and confusion around the kinds and dimensions of interprofessional work. We invite theorists to use our

typology and classification as building blocks towards the development of a unified theory of interprofessional working.

Our results and conclusions should be considered in the context of the limitations of this work. Firstly, as a critical review this work did not aim to identify and summarise all available interprofessional interventions in publication; rather, our focus was the application of an existing classification framework on a selected group of studies of interprofessional work, in order to examine its practicability and as an initial step towards exploring the empirical validation of its use. Secondly, our time and funding constraints meant this review was necessarily selective, privileging currency and quality of each study over quantity of papers; we acknowledge that some deviant cases or further examples of sub-categories have been missed.

As a conceptual analysis, this paper represents an initial attempt at providing the conceptual building blocks to advance the development of a programme of research in this field. In this sense, the utility and validity of our modified framework and classification tool will be ascertained through future research.

## Concluding comments

Based on the work undertaken in the current paper, we both endorse and update our previous (Reeves et al., 2010) framework, as a practical tool for standardising and communicating practice and research around interprofessional work. We clarify the four main kinds of interprofessional work activity, propose a modified typology to account for additional sub-categories we identified, define the six dimensions of interprofessional work, and present InterPACT: a tool to assist in making decisions about designing, classifying and evaluating interprofessional activities and interventions.

We challenge future research to use, and in so doing examine and refine, the proposed typology and classification tool to clearly position interprofessional interventions under one of the four

main categories of teamwork, collaboration, coordination, and networking; and, where appropriate, under a sub-category. We recommend the development of programmes of research that study each of these categories at greater depth in order to contribute to their further development and refinement. In addition, the six dimensions of the framework could also be examined in future research by, for example, seeking answers to questions such as: what tools could be used to measure the six dimensions proposed; can different combinations of these dimensions lead to different kinds of interprofessional activity; and do the proposed dimensions track independently of each other?

Consistent application of the proposed classification tool and, by extension, use of the four main categories will lead to greater clarity in the field and enable the built up of a more reliable and coherent evidence base on interprofessional working in healthcare. Through this paper, we have made a start in that direction and invite others to build on this work in order to drive practical, educational and theoretical advancements in the interprofessional field internationally.

#### **Declaration of interest**

The authors report no conflicts of interest. The authors alone are responsible for the writing and content of this article.

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<sup>i</sup><https://www.ahrq.gov/teamstepps/index.html>

<sup>ii</sup><http://www.nhs.uk/improvement-programmes/long-term-conditions-and-integrated-care/mdt-fit-tool.aspx>